

FIG. 1A

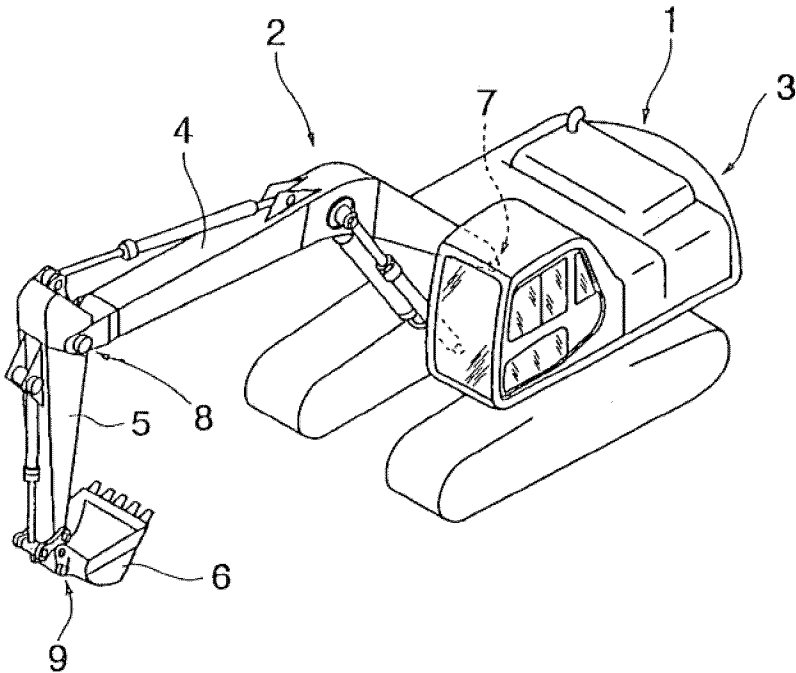


FIG. 1B

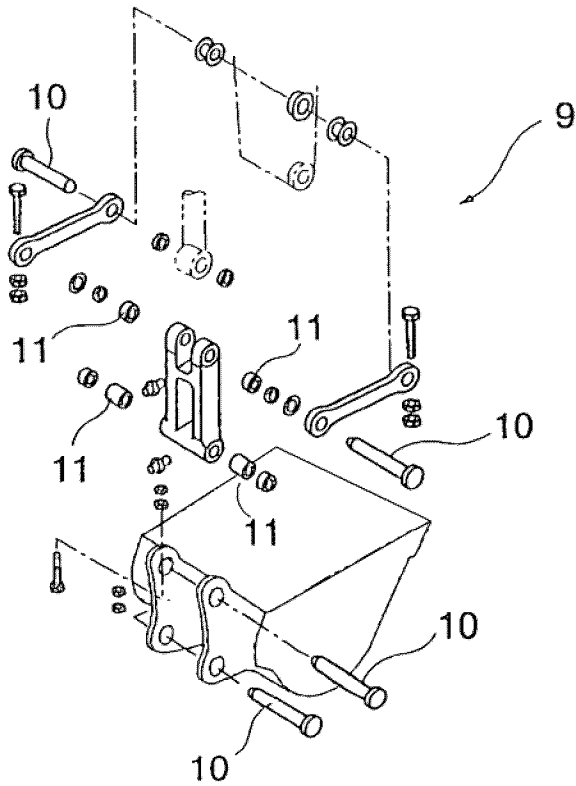
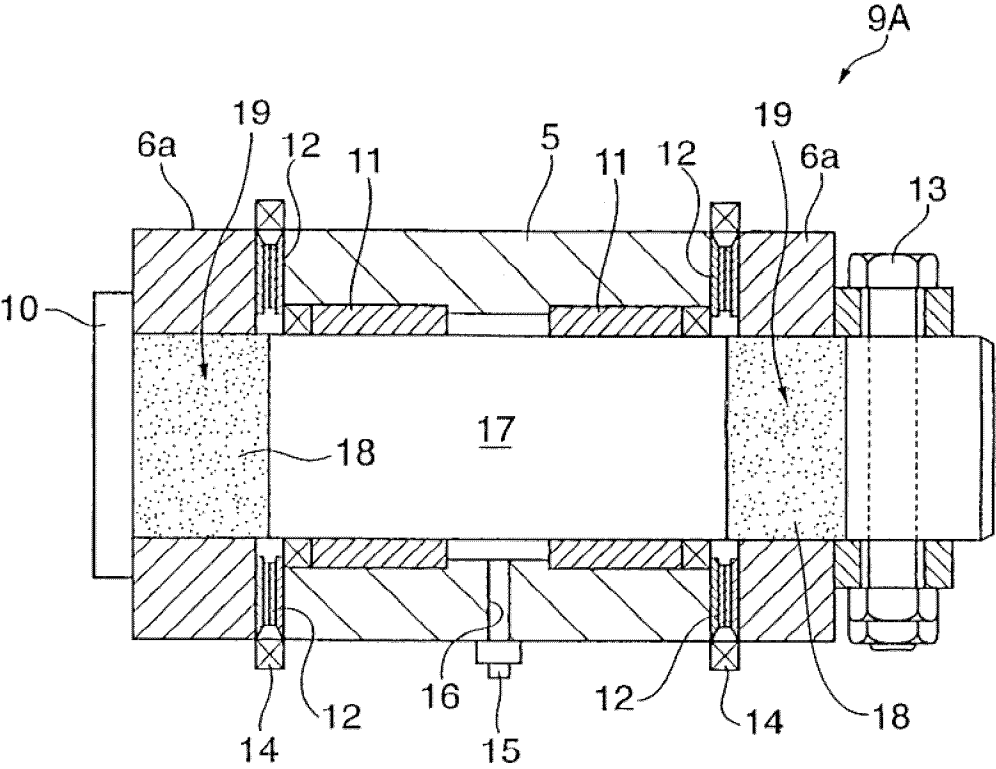
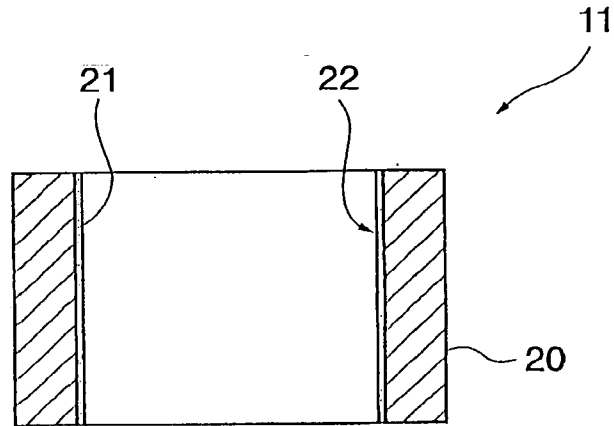


FIG. 2

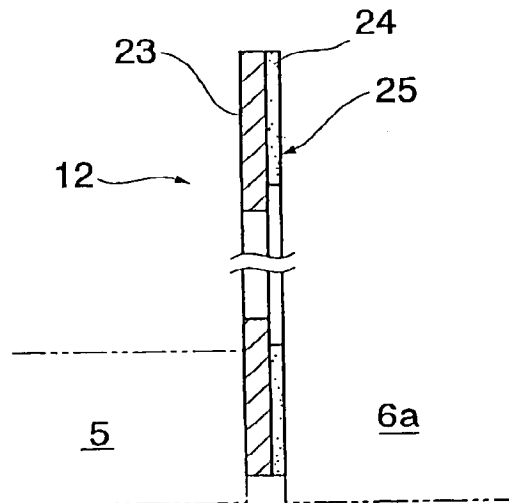


3/29

**FIG. 3A**

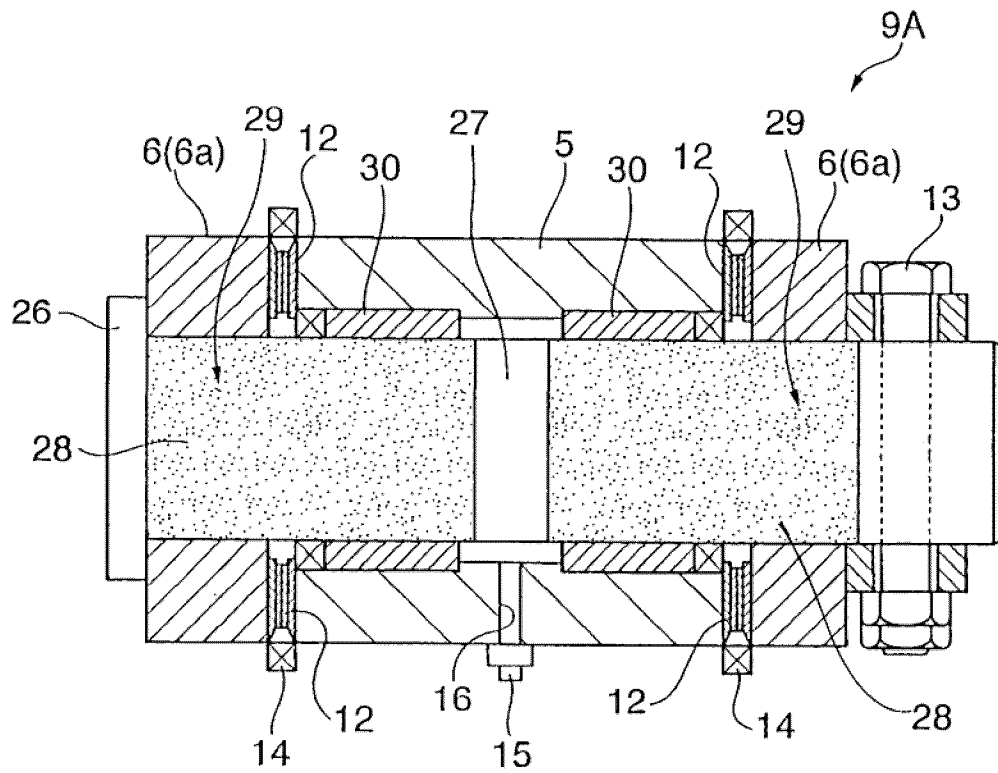


**FIG. 3B**



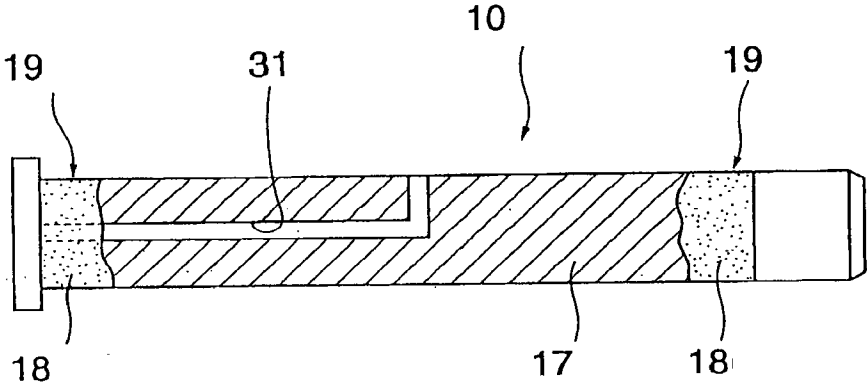
4/29

**FIG. 4**

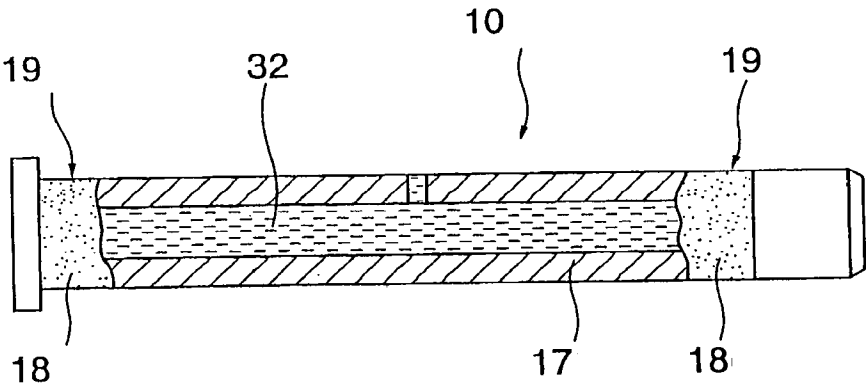


5/29

*FIG. 5A*



*FIG. 5B*



6/29

FIG. 6A

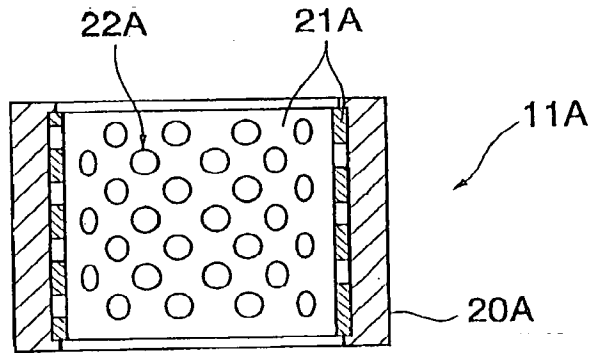


FIG. 6B

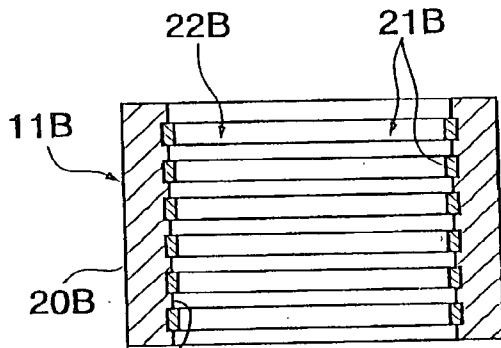


FIG. 6C

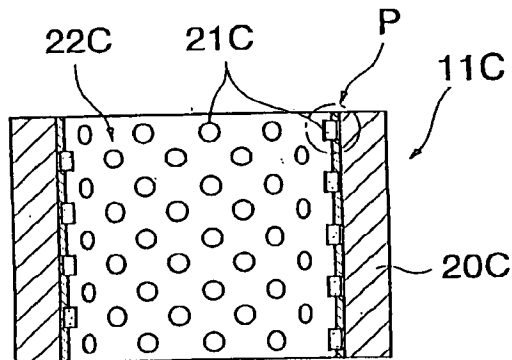


FIG. 6D

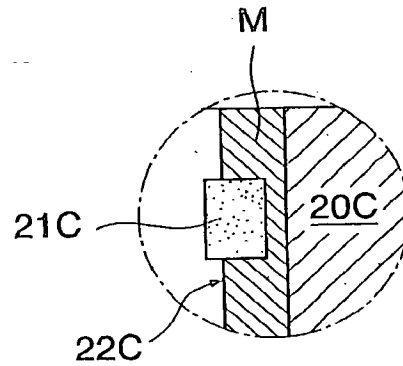
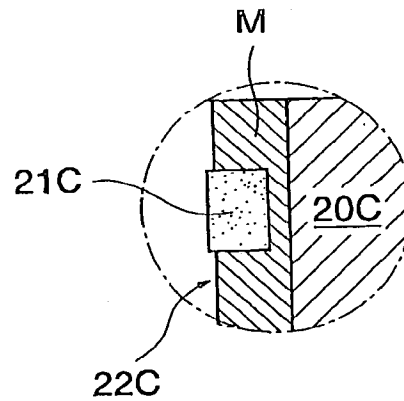


FIG. 6D'



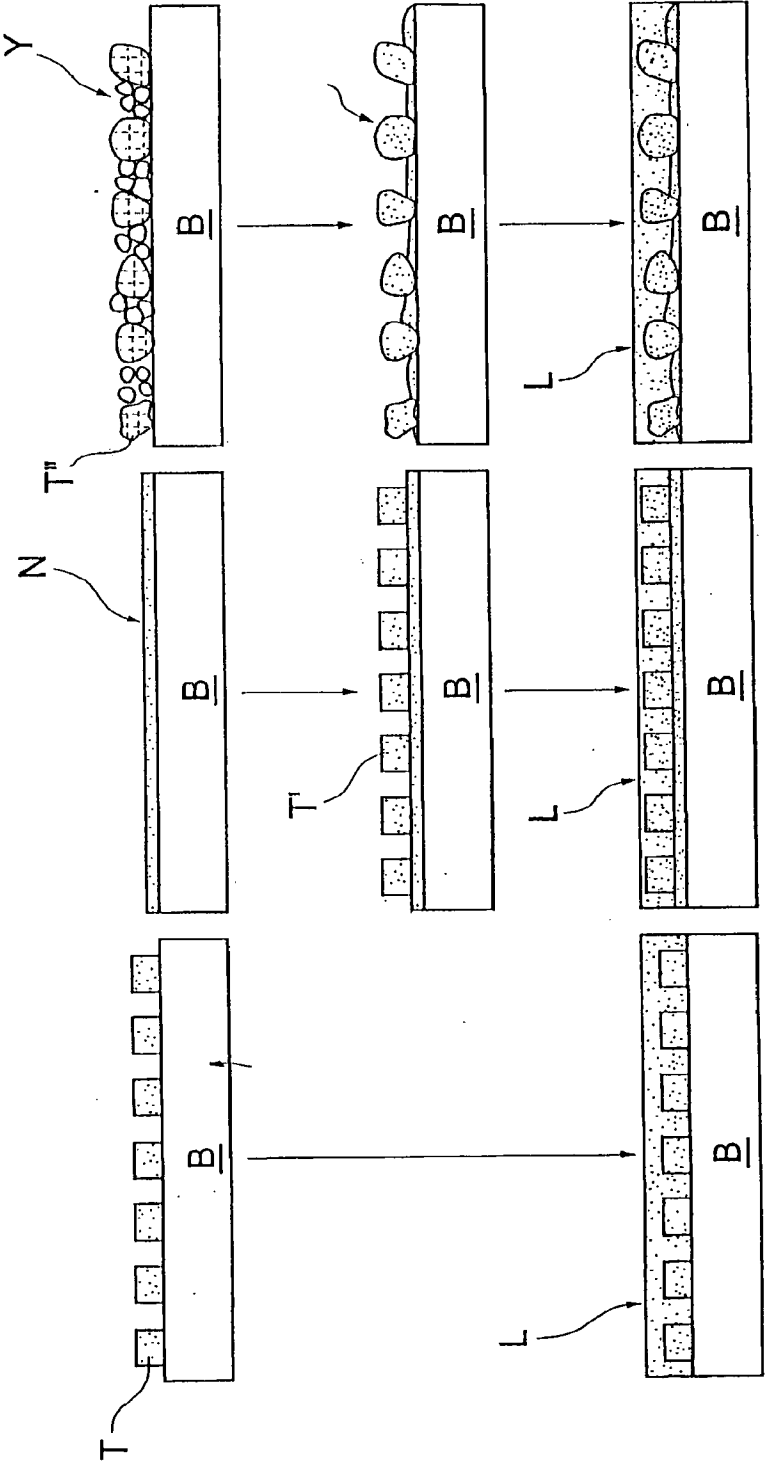


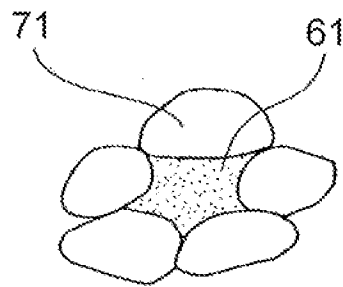
FIG. 7C

FIG. 7B

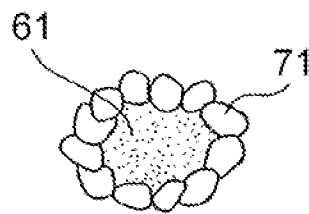
FIG. 7A

8/29

**FIG. 8A**



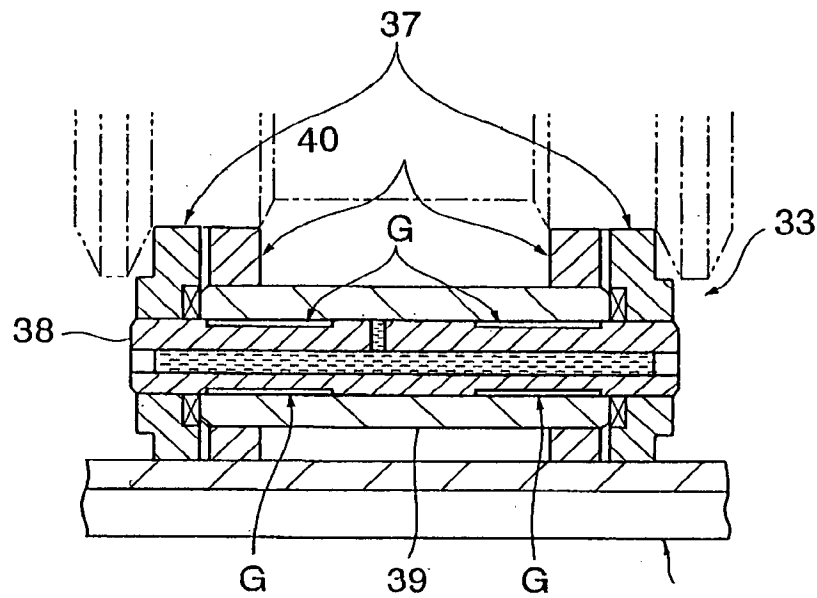
**FIG. 8B**



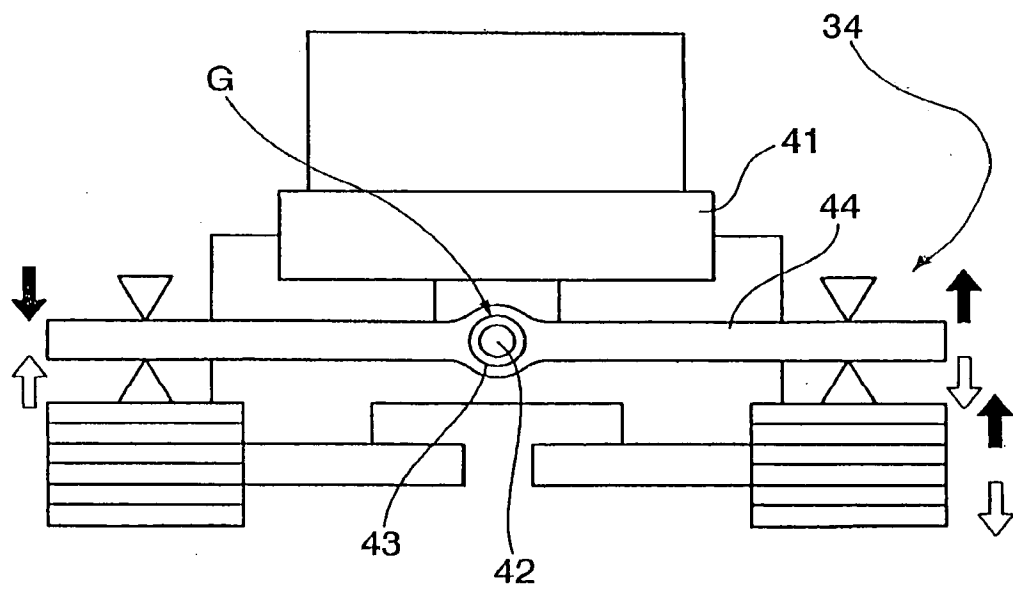


9/29

**FIG. 9A**

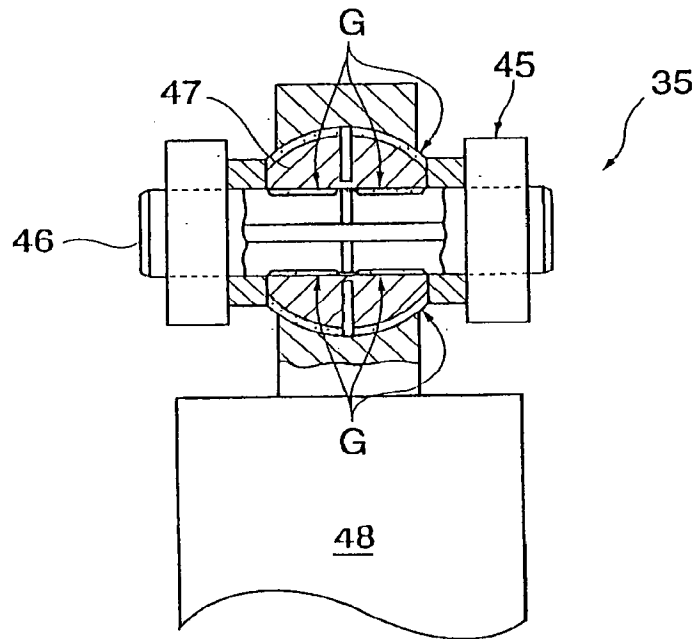


**FIG. 9B**

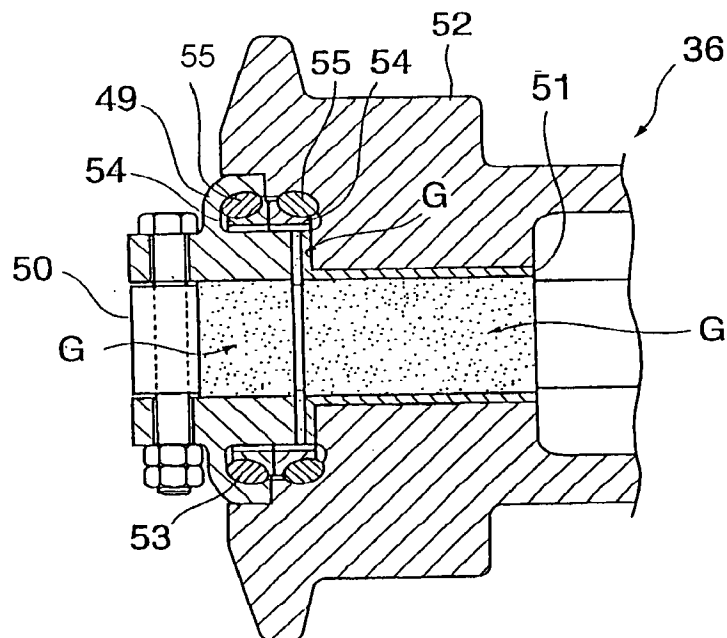


10/29

**FIG. 10A**



**FIG. 10B**

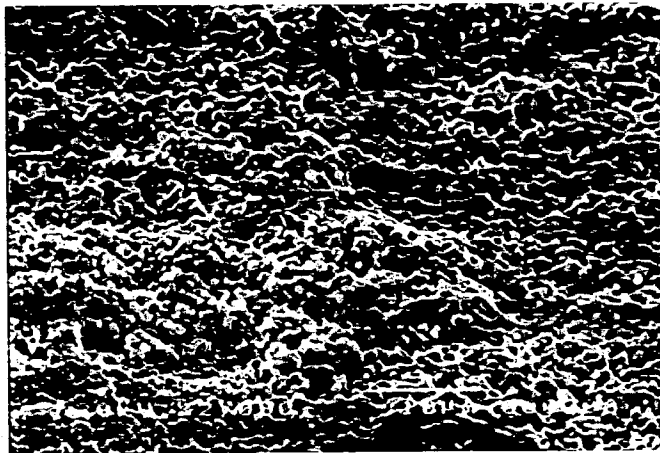


11/29

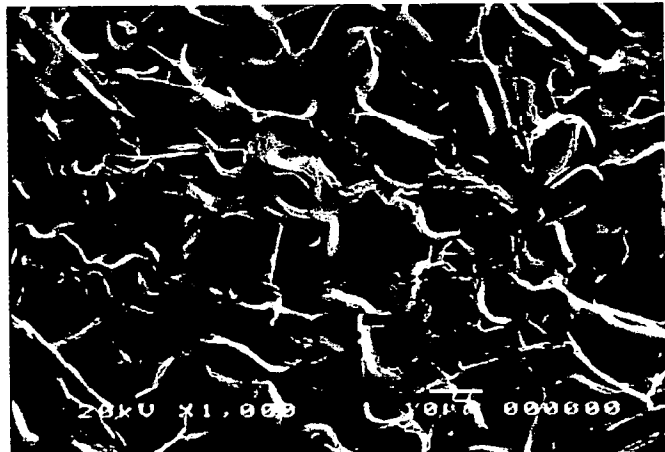
*FIG. 11A*



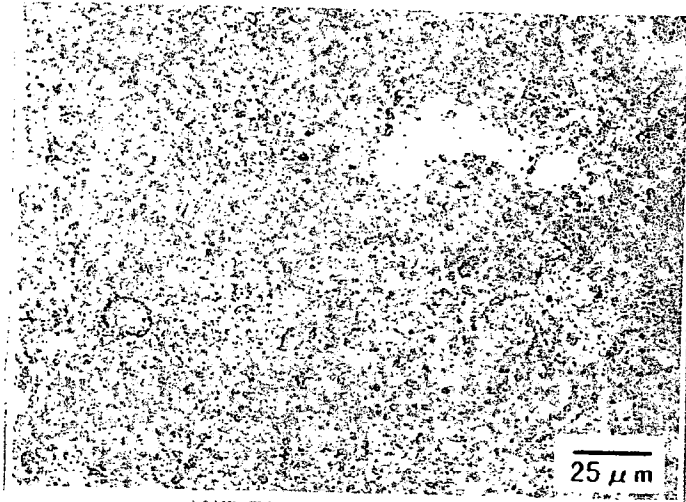
*FIG. 11B*



*FIG. 11C*



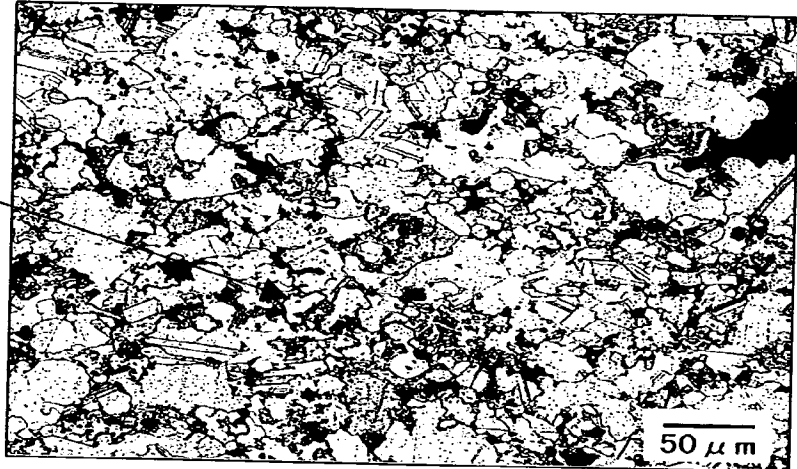
12/29

***FIG. 12A******FIG. 12B***

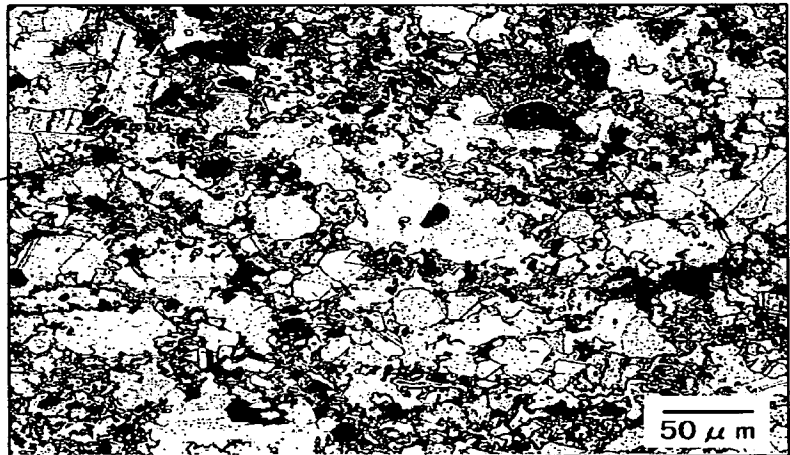
13/29

**FIG. 13A**

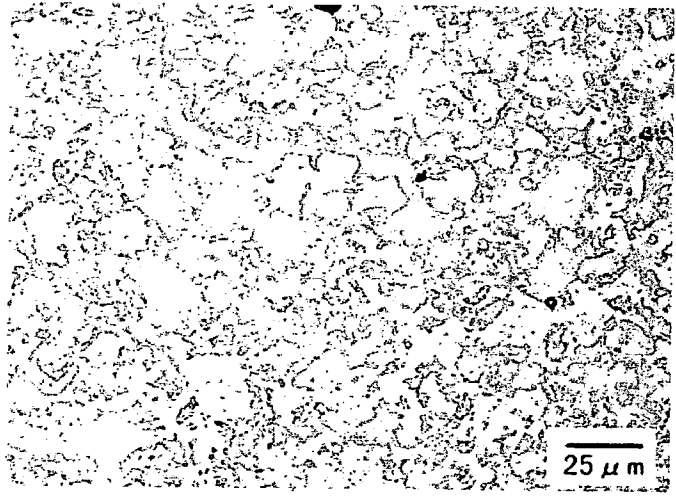
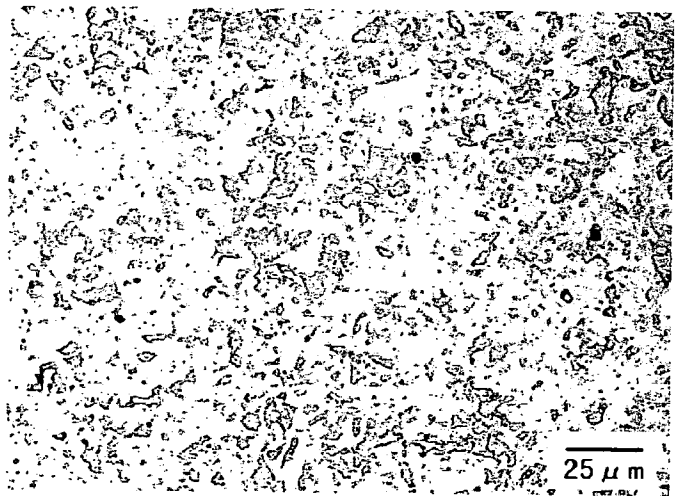
Hv120

**FIG. 13B**

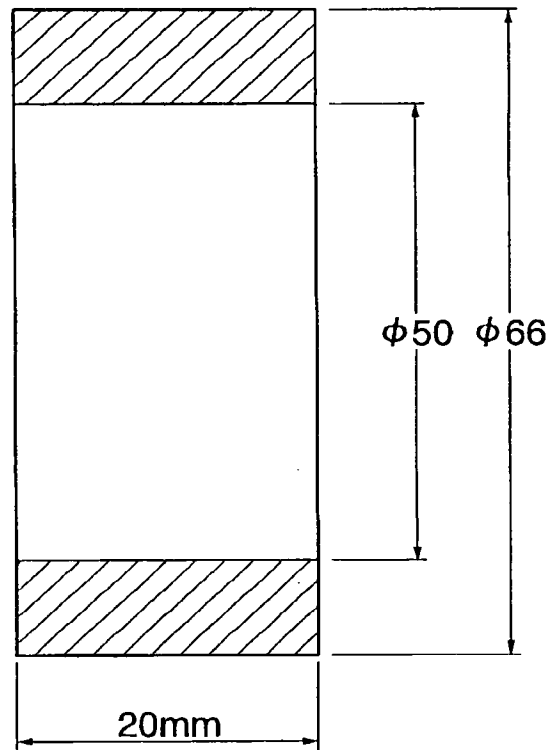
Hv145



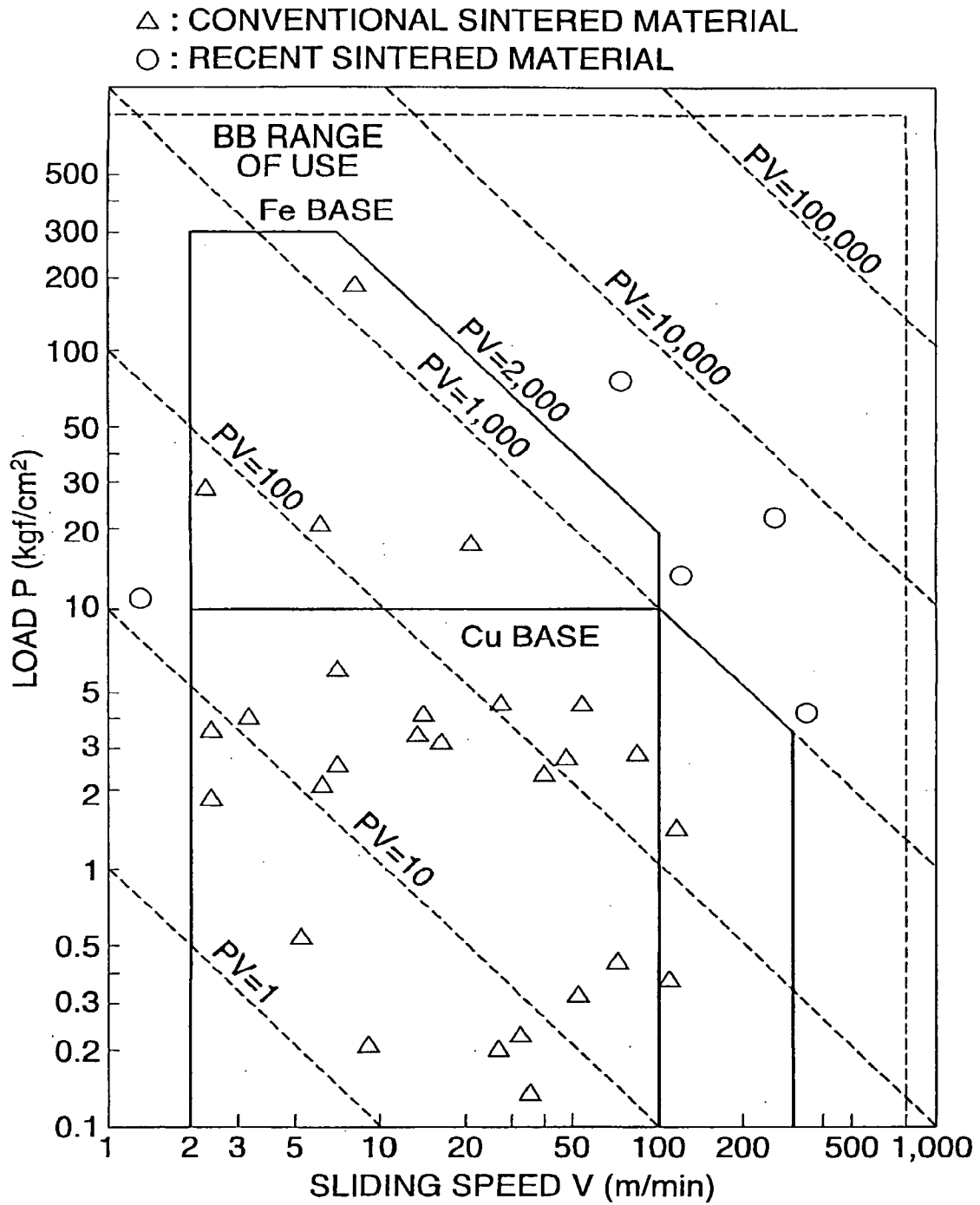
14/29

**FIG. 14A****FIG. 14B**

15/29

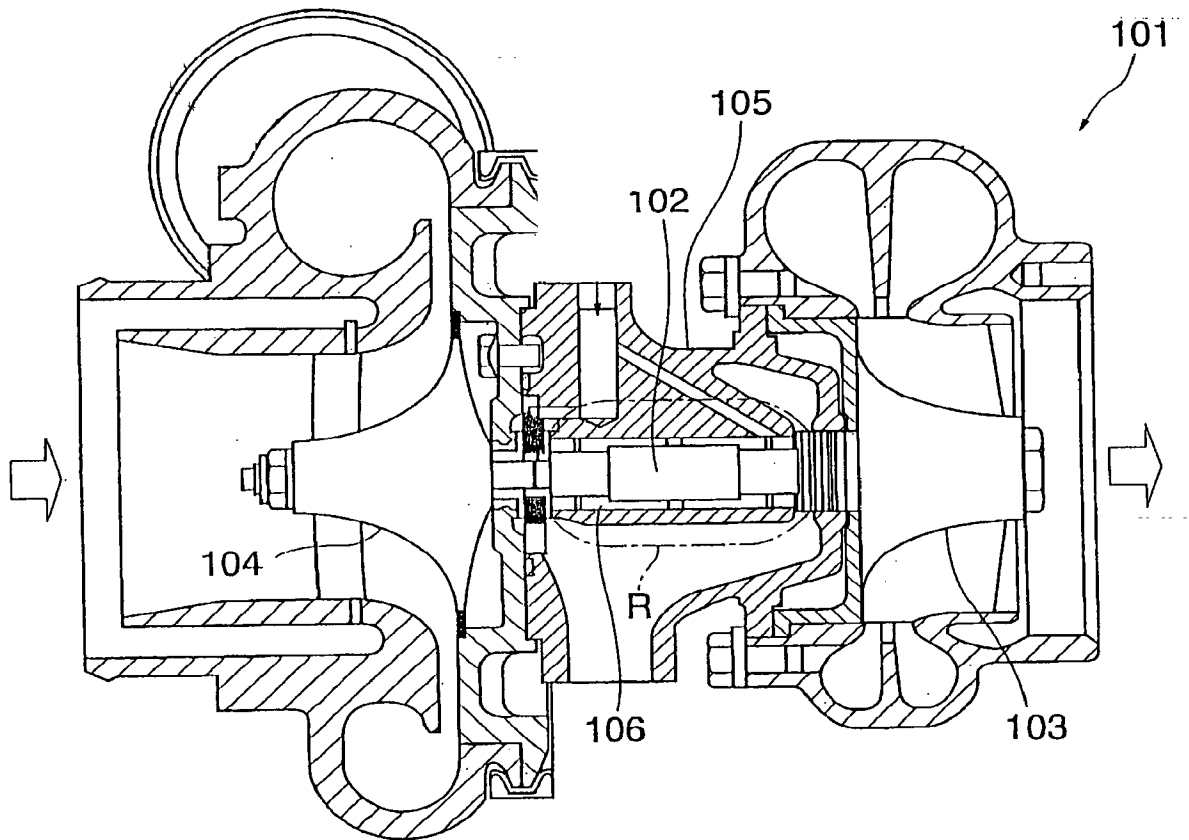
***FIG. 15***

16/29

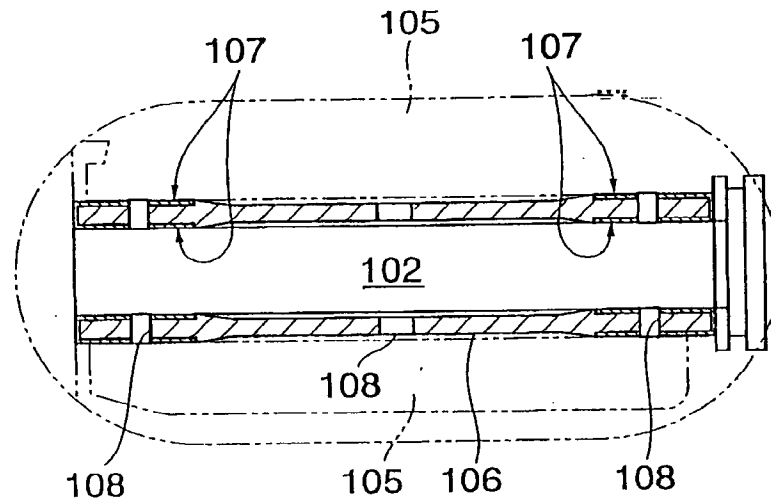
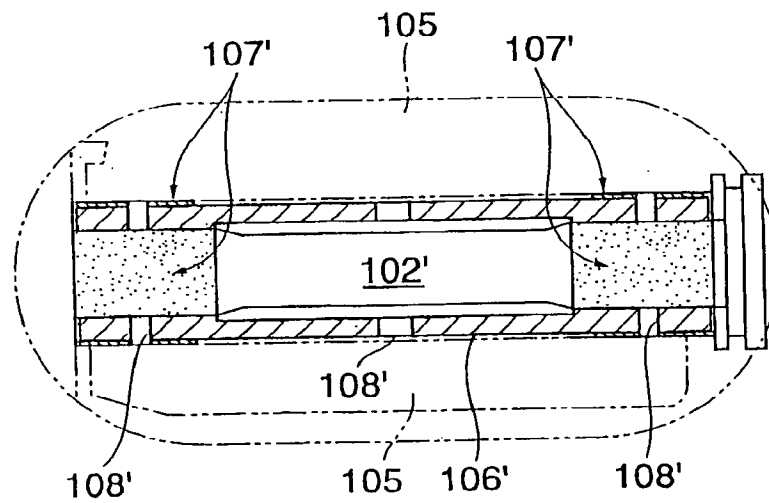
**FIG. 16**



17/29

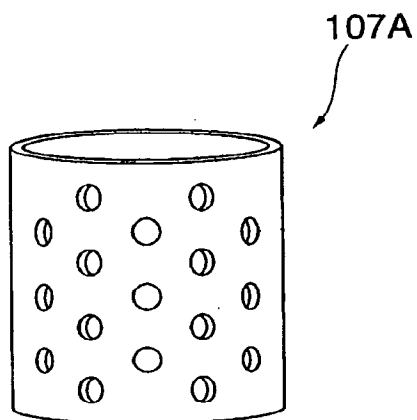
**FIG. 17**

18/29

**FIG. 18A****FIG. 18B**

19/29

**FIG. 19A**



**FIG. 19B**

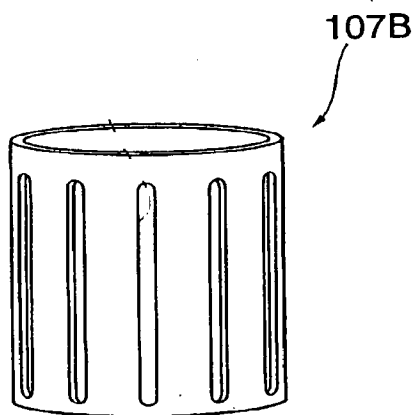
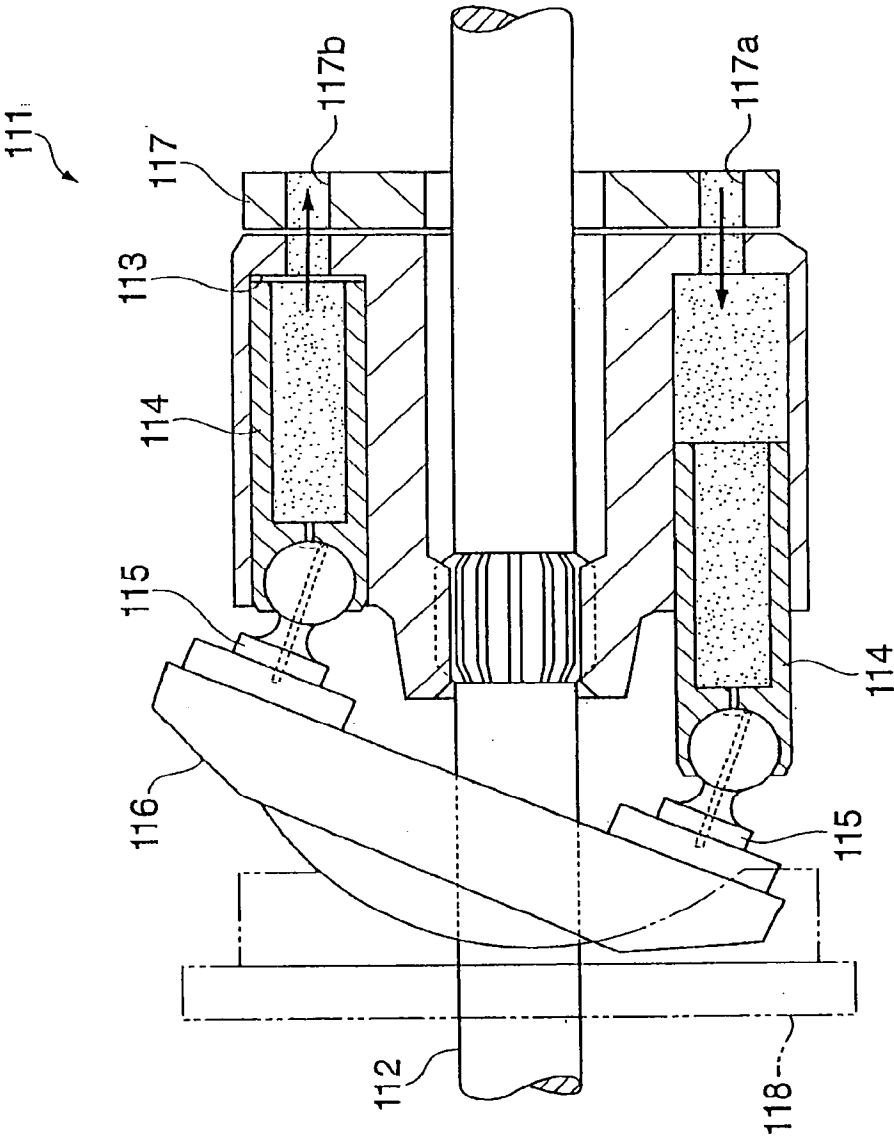


FIG. 20



21/29

FIG. 21A

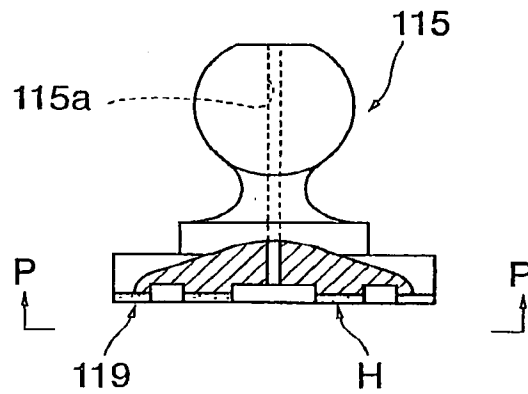


FIG. 21B

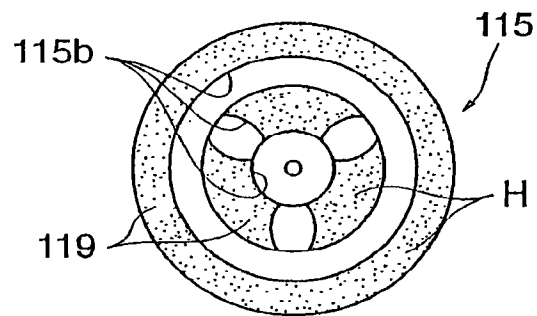


FIG. 21C

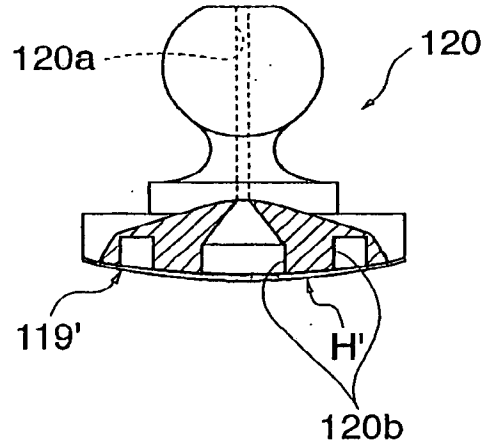
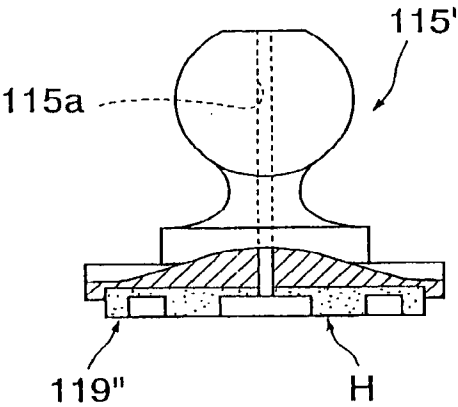
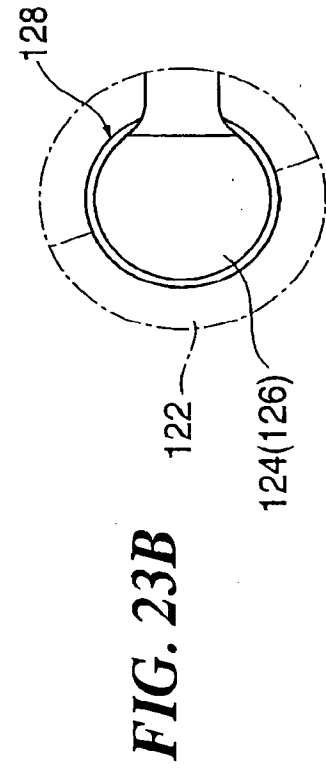
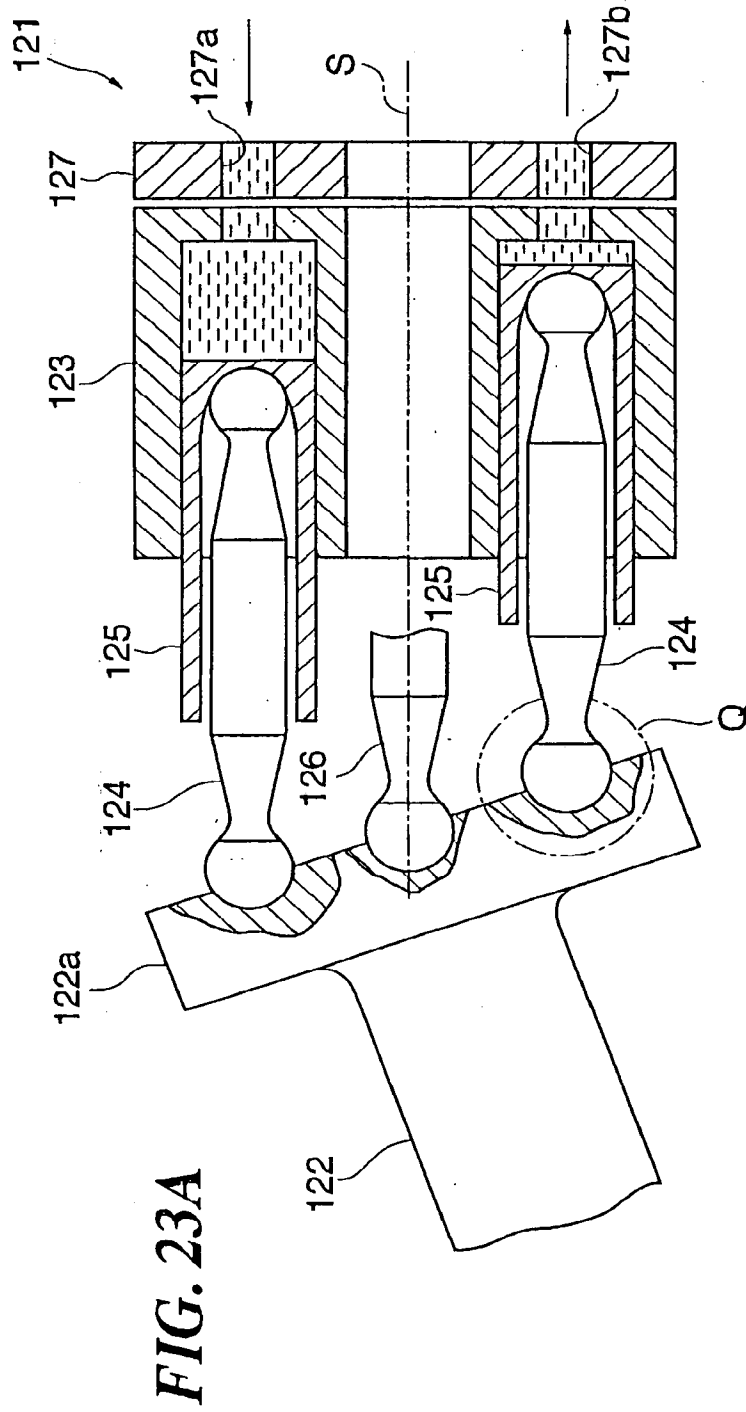


FIG. 22



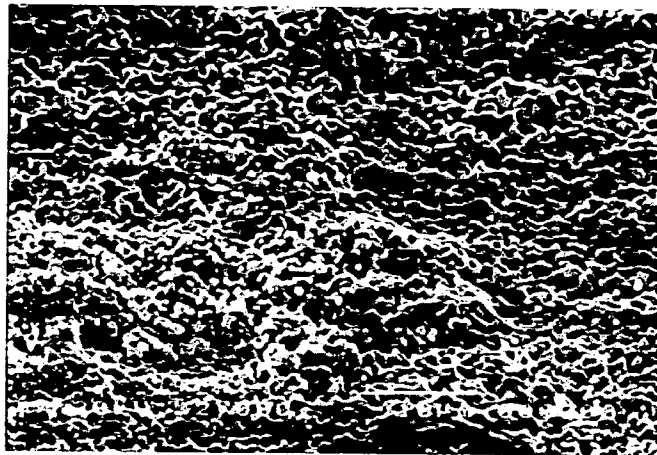


24/29

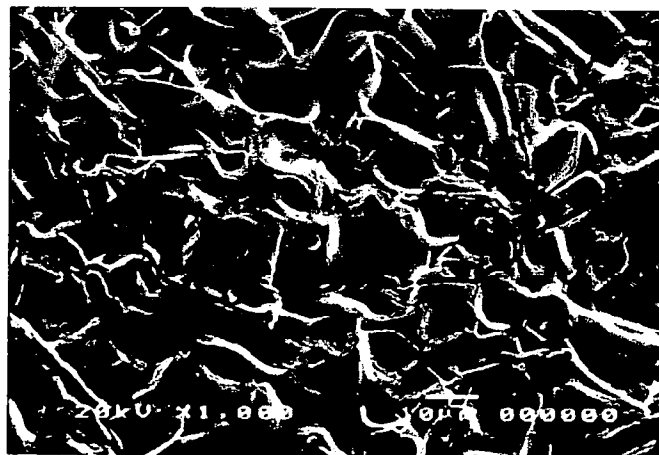
**FIG. 24A**



**FIG. 24B**



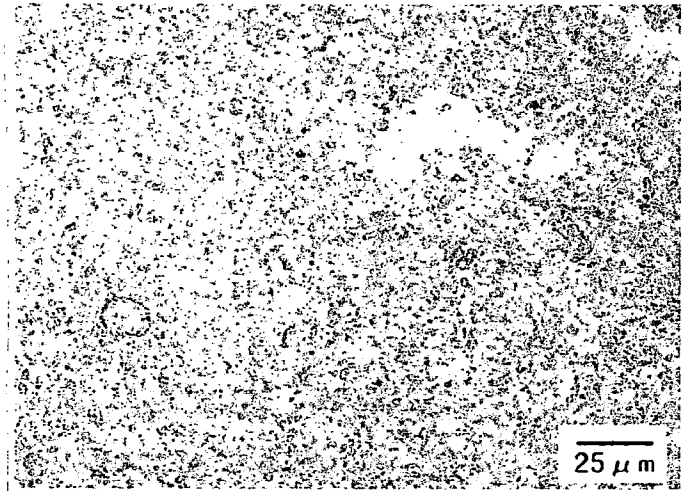
**FIG. 24C**



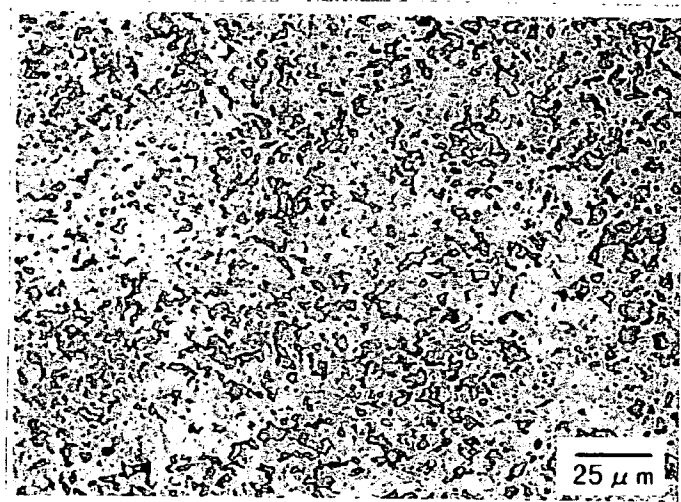


25/29

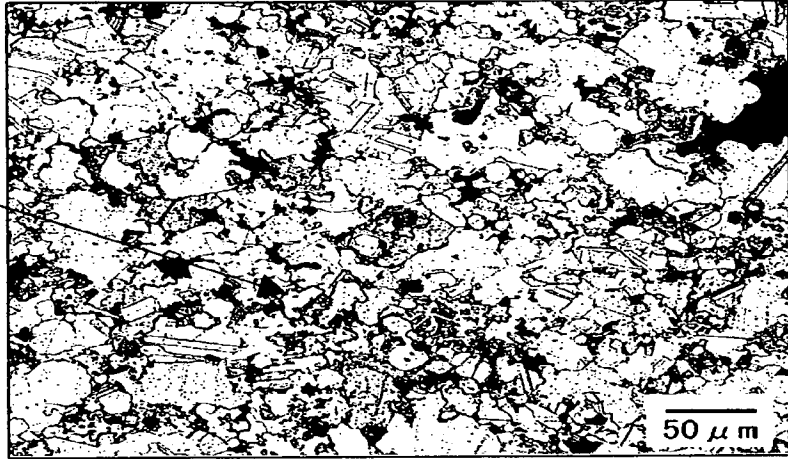
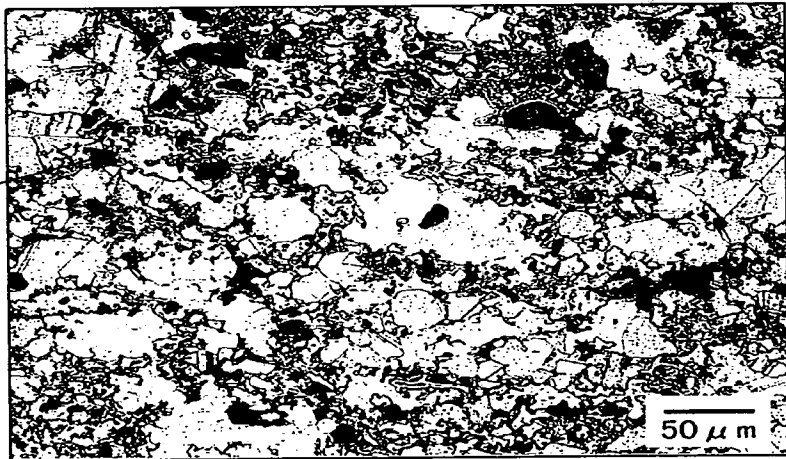
**FIG. 25A**



**FIG. 25B**



26/29

**FIG. 26A****FIG. 26B**

27/29

FIG. 27A

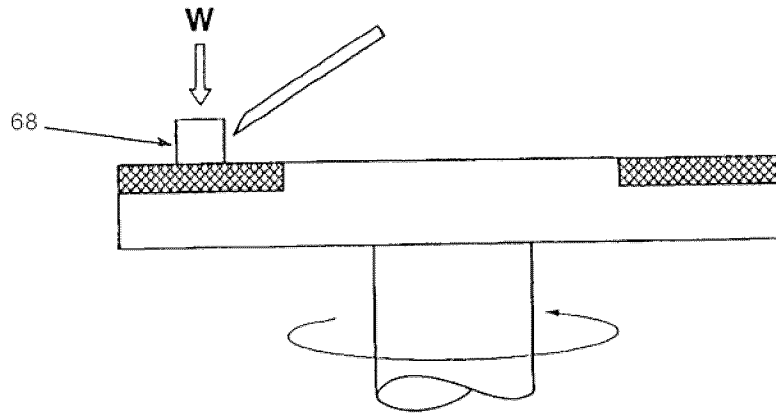


FIG. 27B

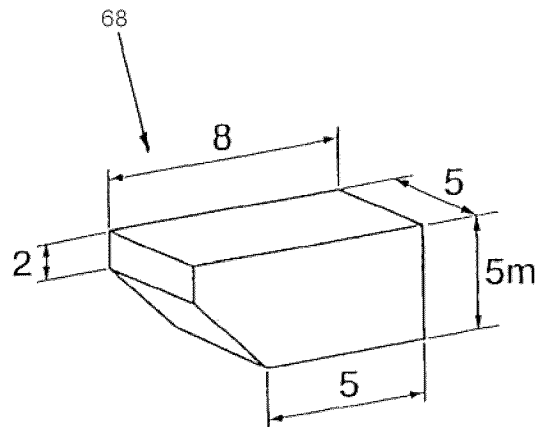
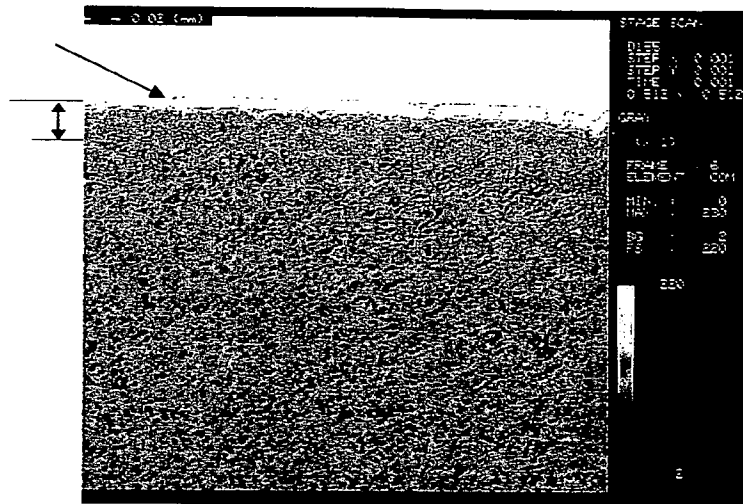
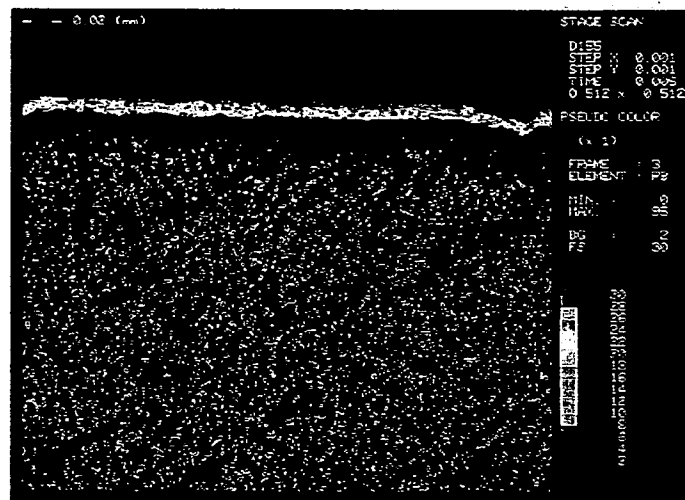


FIG. 27C

CONDITION  
REFERENCE : CARBURIZED AND QUENCHED SCM420  
SURFACE HARDNESS: HRC60~62  
SURFACE ROUGHNESS: UNDER 3S  
LUBRICATING OIL: #E10  
AMOUNT: 5cm<sup>3</sup>/min(DROP)  
TEMPERATURE: 60°C  
SLIDING SPEED: 10m/sec  
BEARING STRESS: Max800kgf/cm<sup>2</sup>

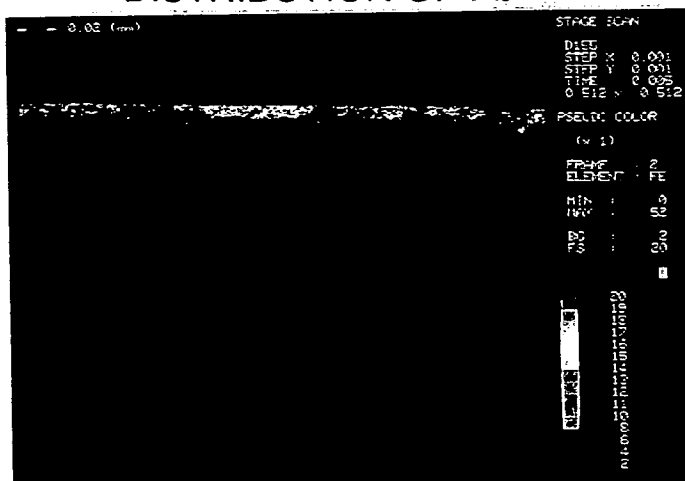


**FIG. 28A**



**FIG. 28B**

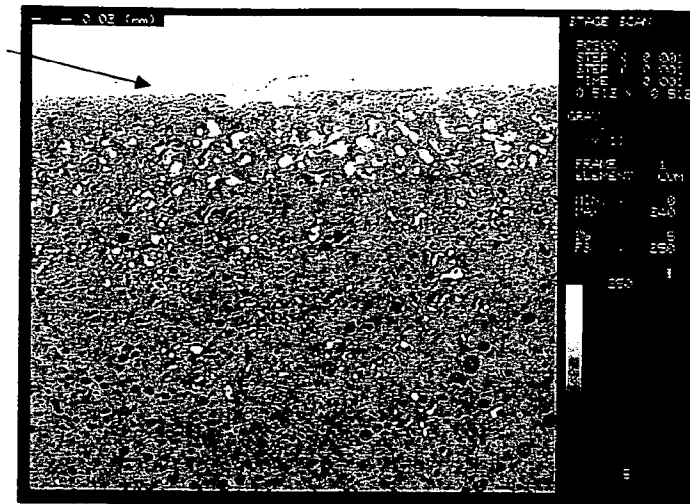
## DISTRIBUTION OF Pb



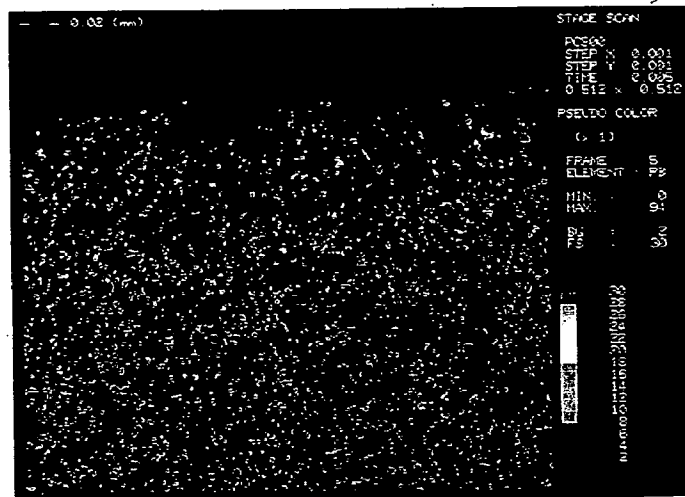
**FIG. 28C**

### DISTRIBUTION OF Fe

29/29

*FIG. 29A*

COMPOSITION

*FIG. 29B*

DISTRIBUTION OF Pb

*FIG. 29C*

DISTRIBUTION OF S